

Remarks

Prior to examination, entry of the foregoing amendment is respectfully requested in accordance with the provisions of 37 C.F.R. §1.115. This amendment is presented to reference the claim to the benefit of the filing date of an earlier-filed U.S. Provisional Application, which was originally made in the Declaration submitted for the present U.S. Patent Application, and the benefit of an earlier-filed U.S. Patent Application, No. 10/506,708, which in turn benefits from an earlier-filed U.S. Patent Application No. 10/311,613, in accordance with the provisions of 37 C.F.R. §1.78.

This paper is also being filed to advise the U.S. Patent Office of information which may be considered "material to patentability" in examining this patent application, in accordance with the provisions of 37 C.F.R. §1.56.

This application is derived from International Application No. PCT/US2004/012582, and was filed pursuant to 35 U.S.C. §371. The following documents are noted for being cited in the Search Report issued during the international stage of the PCT application.

U.S. Patents

6,257,494 (Tokuoka et al.) - Issued: July 10, 2001

5,988,519 (Jordie) - Issued: November 23, 1999

3,905,568 (Watanabe et al.) - Issued: September 16, 1975

Copies of these documents should already have been received by the U.S. Patent Office, and two PTO-1449 forms are enclosed with this Information Disclosure Statement to facilitate the Examiner's acknowledgement of the above-listed documents.

The following documents are also being submitted for consideration in this matter.

Other Documents

Camp, W.M., Notes on Track, pages 318-321 (1903).

Davis, D.D., et al., "Field Implementation of Flange Bearing in Crossing Diamonds: the North American Rail Industry is Implementing OWLS Flange-Bearing Frog Crossing Diamonds; TTCI Finds OWLS are Suitable for the Job and has a Close Eye on Their Progress", Railway Track and Structures (October, 2004).

Unspecified Author, "The MacPherson Switch and Movable Frog; Canadian Pacific Railway", Engineering News (February 21, 1895).

Copies of the available (cited) portions of the above listed documents are enclosed with this Information Disclosure Statement.

The U.S. Patent Office is further informed of commonly owned, co-pending U.S. Patent Application No. 10/311,613, which has been assigned the filing date of December 17, 2002, and

which was derived from an International Application, No. PCT/US01/41074, having an International Filing Date of June 20, 2001.

International Application No. PCT/US01/41074 was published under the No. WO 01/98938 on December 27, 2001. A copy of this publication, including the issued Search Report, is enclosed with this Information Disclosure Statement.

The following documents are noted for being cited in the Search Report issued during the international stage of International Application No. PCT/US01/41074.

U.S. Patents

5,791,254 (Mares et al.) - Issued: August 11, 1998

4,860,666 (Smith) - Issued: August 29, 1989

4,693,183 (Pötzsch) - Issued: September 15, 1987

Other Document

Ahmadian, Mehdi, "Filtering Effects of Mid-Cord Offset Measurements on Track Geometry Data", Proceedings of the 1999 ASME/IEEE Joint Railroad Conference, pages 157-61 (1999).

A copy of the cited portions of this document is enclosed for consideration in this matter.

The following documents are noted for being cited in the specification for U.S. Patent Application No. 10/311,613.

Other Documents

Kufver, Björn, VTI Report 420A, "Mathematical Description of Railway Alignments and Some Preliminary Comparative Studies", Swedish National Road and Transport Research Institute, pages 1-4, 9-12 and 41-60 (1997).

Presle, Gérard, et al., "Entwicklung und Grundlagen neuer Gleisgeometrie", ZEV + DET Glas. Ann. 122, 9/10, September/October, pages 579-86 (1998).

Copies of the cited portions of these documents are enclosed for consideration in this matter. To provide the concise explanation of the relevance of non-English language documents which is required by 37 C.F.R. §1.98(a)(3)(i), the German language document is submitted for its discussion of a technique which has been proposed, and proven in practice, for substantially improving spiral performance by raising the roll axis (i.e., the longitudinal axis about which the track is rotated for purpose of changing the roll angle) above the plane of the track.

U.S. Patent Application No. 10/311,613 has since been examined, and allowed. The following documents are noted for being cited by the U.S. Patent Office during the examination of U.S. Patent Application No. 10/311,613.

U.S. Patents

6,347,265 (Bidaud) - Issued: February 12, 2002
5,012,413 (Sroka et al.) - Issued: April 30, 1991
4,323,013 (Theurer) - Issued: April 6, 1982
3,732,827 (Anderson) - Issued: May 15, 1973

U.S. Patent Application Publication

2001/0010197 (Kassab) - Published: August 2, 2001

Other Documents

Belzer, J., "Geometrics of Spiral Bridge Design", 13th National Meeting of the Association for Computing Machinery, pages 13-1 to 13-3 (June, 1958).

Krueger, H., et al., "Simulation Within the Railroad Environment", Proceedings of the 32nd Conference on Winter Simulation, pages 1191-1200 (December, 2000).

Steenblik, R.A., et al., "Numerical Modeling of the Conformational Transition of a Spiral Focusing Surface", ACM SIGSIM Simulation Digest, Proceedings of the 23rd Annual Symposium on Simulation, pages 127-134 (April, 1990).

Copies of the cited portions of these documents are enclosed for consideration in this matter.

The U.S. Patent Office is further informed of commonly

owned, co-pending U.S. Patent Application No. 10/506,708, which has been assigned the filing date of September 7, 2004, and which was derived from an International Application, No. PCT/US2003/009667, having an International Filing Date of March 28, 2003.

International Application No. PCT/US2003/009667 was published under the No. WO 03/083214 on October 9, 2003. A copy of this publication, including the issued Search Report, is enclosed with this Information Disclosure Statement.

The following documents are noted for being cited in the Search Report issued during the international stage of International Application No. PCT/US2003/009667.

U.S. Patents

5,791,254 (Mares et al.) - Issued: August 11, 1998
4,860,666 (Smith) - Issued: August 29, 1989
4,693,183 (Pötzsch) - Issued: September 15, 1987

Other Document

Ahmadian, Mehdi, "Filtering Effects of Mid-Cord Offset Measurements on Track Geometry Data", Proceedings of the 1999 ASME/IEEE Joint Railroad Conference, pages 157-61 (1999).

The following documents are noted for being cited in the specification for U.S. Patent Application No. 10/506,708.

Other Documents

Abramowitz, Milton, et al., Handbook of Mathematical Functions, National Bureau of Standards, Applied Mathematics Series 55, pages 773-775, U.S. Government Printing Office, Washington, D.C. (1964).

Baluch, Henryk, "Optimation of Transition Length Increase", Rail International, October 1982, pp. 12-19.

Copies of the cited portions of these documents are enclosed for consideration in this matter.

U.S. Patent Application No. 10/506,708 has since been examined, and an Office Action has issued. No documents were cited by the U.S. Patent Office in the issued Office Action.

The U.S. Patent Office is further informed of commonly owned International Application No. PCT/US2005/014749, having an International Filing Date of April 28, 2005.

International Application No. PCT/US2005/014749 was published under the No. WO 2005/104789 on November 10, 2005. A copy of this publication, together with the issued Search Report, is enclosed with this Information Disclosure Statement.

The following documents are noted for being cited in the Search Report issued during the international stage of International Application No. PCT/US2005/014749.

U.S. Patents

6,257,494 (Tokuoka et al.) - Issued: July 10, 2001

5,012,413 (Sroka et al.) - Issued: April 30, 1991

3,939,777 (Moran) - Issued: February 24, 1976

3,732,827 (Anderson) - Issued: May 15, 1973

Other Documents

Clark, R., "Rail Flaw Detection: Overview and Needs for Future Developments", NDT & E International, Vol. 37, No. 2, March 2004, pages 111-118.

Krueger, H., et al., "Simulation Within the Railroad Environment", Proceedings of the 32nd Conference on Winter Simulation, pages 1191-1200 (December, 2000).

Copies of the cited portions of these documents are enclosed for consideration in this matter.

Copies of the above-listed U.S. patent documents have not been enclosed with this Information Disclosure Statement in view of the waiver of such requirements for International Applications which entered their U.S. national stage after June 30, 2003 (OG Notices; 05 August 2003).

The U.S. Patent Office is further advised of a presentation which applicant submitted to the American Railway Engineering and Maintenance of Way Association (AREMA) for inclusion in its proceedings for the year 2000 Annual Conference,

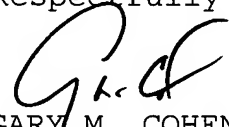
which was held in Dallas, Texas, from September 11 to 13, 2000.

This included an oral presentation entitled "The Right Way to Design Track Curve Transition Spirals", made during the Annual Conference, and a written presentation in a paper which appeared in the proceedings of the Annual Conference entitled "Improved Spiral Geometry for High Speed Rail". Copies of a series of slides which were projected as part of the oral presentation, and the written paper which appeared in the proceedings of the Annual Conference, are enclosed with this Information Disclosure Statement.

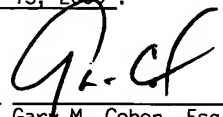
Consideration of the above-listed documents is respectfully requested under 37 C.F.R. §1.56(a)(2), and it is further respectfully requested that the Examiner acknowledge consideration of these documents by initialing the PTO-1449 forms (2) which are enclosed with this Information Disclosure Statement and which list the foregoing documents.

It is respectfully requested that the Examiner provide applicant with initialed copies of the enclosed PTO-1449 forms to confirm consideration of the listed documents.

Respectfully submitted,


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I hereby certify that this correspondence is being deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to "Mail Stop PCT, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" on January 13, 2006.

Date: 1/13/06 
Gary M. Cohen, Esq.